# The funded and unfunded or floating economics essay

Economics

Before establishing our own theoretical model to account for the effect of public debt on economic growth, it necessitates us to concisely review literature on debt, economic growth and other related concepts. The objective of this study, this chapter will review literature on the following four inter-related areas: Level of debt, Cost of debt, Debt financing vs. Tax financing, and public debt in relation to inflation. According to (Wigger, 2007) the theories and economic policies of classical economist do not only mean questions of historical but also of actual interest, particularly nowadays, where the level and structure of taxation, as well as the deficit and the public debt are high in the list of crucial problems requiring instantaneous treatments from governments. In the argument of public debt, the concentration is based on the three major classical economist (Ricardian, Smith and J. S Mill) since they share a mutual set of principles amidst which is involved the idea that government expenditures satisfy beneficial social functions which in general, cannot or are unsuitable to be accomplished by the private sector. Classification of public debt

## Productive and Unproductive

Investment that generates an income which will meet the interest payments of the debt and the repayment of the principle sum in the long run is said to be productive. E. g, loans taken for financing railways, irrigation works. Unproductive debts are those which do not create any asset. E. g, loan raised by the government to finance a war.

## Voluntary and Compulsory

When individuals and institutions are invited to take up government bonds without any force from above, it is known as voluntary. On the other hand, compulsory is when there is force to buy the bonds.

## Internal and External

A loan raised by the Govt. from sources inside the country is called internal debt. Borrowings from foreigners are named external debt.

## Funded and Unfunded or Floating

While funded debt is the one which is repayable just after a long time, unfunded or floating debt are short term loans like treasury bills.(William R. DiPeitro, 2012) examines the impact of the size of government and public debt on real economic growth, for a panel of 175 countries around the world. He points out that both the size of government and the extent of government indebtedness have negative effects on economic growth. The governments ought to take essential actions to diminish extreme government spending and public debt, so as to boost economic growth.

## 2. 1 Level of Debt

Practically, borrowing level, both the aggregated borrowing level for the entire financial market over the nation and the individual borrowing level for each jurisdiction, is positively connected with borrowing costs. First, an increase in the total borrowing level will raise the borrowing costs for all municipal borrowers and this is sometimes called the " crowding out" effect, because the more governments borrow, the less the private sector can borrow. According to (Miller, 1975) , private expenditure can be allegedly "

crowded out" wholly by fiscal expansions so as to allow the net effect on real income equal to zero in the long run. Friedman, Holmes and Smith emphasize that any alteration in government spending or changes in taxes may change real income on a temporary basis, however, any " pure" fiscal policy should be accompanied by an alteration in government debt. The smaller debt that accompanies a fiscal expansion reduces interest rates and eventually raises private demand. Macroeconomics, especially Keynesian school of thought, suggests that government spending accelerates economic growth. Thus, government expenditure is regarded as an exogenous force that changes aggregate output. The public finances of Mauritius are fundamentally sound, and public expenditure is sustainable over the medium term. Since fiscal consolidation began in 2005, public debt has been reduced from a peak of over 80% of GDP in 2003 to 52% in 2008, but increased again to 59% in 2010 as a result of the stimulus package enacted n the wake of the financial crisis. Year20042005200620072008200920102011Public Debt as a % of GDP29. 267. 557. 963. 156. 662. 460. 557. 3

## Mauritius Public debt as a percentage of GDP

## Figure I

From figure I, it can be seen that, in the year 2004, public debt as a percentage of GDP was only 29. 2%, representing the lowest. With public debt, GDP has been successfully increased since 2005. Despite the ups and downs from 2005 to 2011, Mauritius public debt as a percentage of GDP has been constantly increasing as compared to what it was in 2004. Therefore it can be concluded that, public debt has considerably made improvements in the level of GDP and people are better off. The Bank of Mauritius has

indicated in its latest newsletter that the amount of debt during the month of December 2010 stood at Rs 19. 6 billion. This figure includes Rs 3. 4 billion as overdraft and Rs 14. 2 billion as bank loans. According to an analysis of the Bank of Mauritius, Mauritians are indebted as a result of purchases made or expenses over the construction of buildings. The debt is rising!

## 2. 2 Cost of Debt

2. 2. 1 How does debt affect the economy?

## Short Run Effect

In monetarists' view, despite that the government do not have any demand-side role unless they trigger alterations in monetary policy. The positive point is that they have important supply effects for goods. In Keynesian theory fiscal policy is a distinct demand-side instrument. Aggregate demand is influenced directly by government's expenditure and indirectly by its taxes. In the Short run, assuming a budget deficit by holding spending constant and reducing tax revenue, a rise in the debt level will ultimately raises household current disposable income. As a result of this policy, aggregate demand and national income will be increased. This is normally because of the sticky wages, prices and increase in aggregate demand which affect the utilization of the factors of production in the economy. Hence, the short run effect is a positive one as compared in the long run.

## Long Run Effect

Unlike the immediate positive effect of debt in the short run, it is essential to take into consideration some national accounting identities so as to evaluate the effects properly. Accounting Identities: Y- National Income, C- Private

Consumption, S- Private Saving, andT – Taxes less government transfer paymentsAccording to the private sector's budget constraint, the following equation is derived; Y = C + S + TSince national income also equals national output, four different equations can be used to explain the types of spending: Y = C + I + G +NX,(1)Where, I denotes domestic Investment, G represents government purchases of goods and services and finally NX, net exports. Combining these two identities yields: S + (T + G) = I + NX(2)Equation (2) therefore means that both the private and public expenditure should equate the sum of investment (I) and net export (NX). Another important aspect of the economy is the current account balance (NX) and the capital account balance (NFI) so as to ensure that the international flows of goods and service are matched by the international flows of fund. Hence the third equation is derived on this basis: NX = NFI, (3)Where, NX represents net exports plus net investment income by domestic residents and net transfers, while NFI means investment by domestic citizens in other countries less domestic investment undertaken by foreign residents. Substituting equation (3) in (1) and (2): S + (T – G) = I + NFI(4)From equation (4), the left hand side means the national saving by both private and public while the right hand side shows the uses of these funds for investment at home or abroad. Like we have assume in the short run, government holding spending constant and reducing tax revenue, this will decrease public saving. If public savings falls by more than the private, this will eventually reduce total investment at home and abroad. Hence, reduced domestic investment in a long run basis will result in a lower capital stock implying a lower output and income. With less capital available, the

marginal product of capital will be higher and thereby raising interest rates. As a result, exchange rates are also affected. According to (Bonnie, 2004) , exchange rate changes have a moderate dynamic effect on inflation, output and exports. In contrast, government expenditures are less effective in influencing any of these macroeconomic variables, either in the short run or in the long run. 2. 2. 2 Effects of borrowingsThe degree of government borrowing plays a vital role in the part of fiscal policy and in the management of aggregate demand in almost every economy. When the state is operating a budget deficit, this implies that during a given year or even the previous year, the total amount of government expenditure has surpassed total tax revenue. If the government is facing a budget deficit, this means that it has to borrow the required amount of money by means of issuing government debt such as Treasury Bills and long-term government bonds. This issue of debt is normally made by the central bank and involves the sale of debt to the bond and bill markets. Majority of the government debt are bought up by financial institutions but in the case of individuals, they can buy bonds, premium bonds and national savings contracts. The absolute economic and social justifications for a greater level of government spending and borrowing are that government borrowing can prosper economic growth. In the long run, if a budget deficit is used to finance extra capital spending this will have a positive macroeconomic effect which leads to a rise in the stock of national assets. For instance, an increased spending on the transport infrastructure ameliorates the supply-side capacity of the economy helping long-run growth. Also, an increase in public-sector investment in health and education can bring about positive effects on labor

productivity and employment. The social welfare of a higher capital spending can be determined through cost-benefit analysis. The budget deficit is seen as an instrument of demand management: Keynesian economists would approve the use of altering the level of borrowing as a mean of fine-tuning or managing the level of aggregate demand. A rise in borrowing can however be stimulus to demand when other sectors of the economy are suffering from weak spending. Sustaining a high level of demand helps to maintain growth and hold unemployment low. 2. 2. 3 Effects of DebtAt moderate levels, debt ameliorates welfare and embellishes growth. However, high levels can be harmful. Debt is likely to divert private investment. Increasing the level of taxes or boosting up inflation to bargain with the debt both have a negative impact on investors' readiness to invest. Also, high level of public debt raises the question of whether the debt will be repaid in full. This can cause a higher risk premium, and that is connected with higher long-term real interest rates, which in turn has negative implications for investment as well as for consumption of durables and other interest-sensitive sectors, such as housing. As per (D. Barry, 1979) the investment decision is based on the cost of borrowing which is frequently cited as a primary determinant of the propensity to invest. It is tempting, therefore, to subscribe to the view that the recorded low rates of capital formation of the last few years are due to unusually high interest rates and equally appealing to assume that a sharp decline in interest rates will lead to a revival of investment and the regeneration of manufacturing industry. The common mistake consistently occurring in the literature, is equating the deficit to government borrowing and assuming that government borrowing is related to the level of interest

rates, (Gissy, 1996).(Musgrave, 1959), noted that when budget balance is altered for stabilization purposes, " the function of taxes as an index of opportunity cost (of government spending) is impaired". There's an old proverb " That which cannot continue, will not." Eventually, authorities will be required to alter policies as current fiscal policies cannot be maintained over the long term. However, the affirmation shows that soaring government debt has lead to a slower economic growth. It also states that we should be very cautious of arguments for any additional short-term fiscal stimulus, as the long-term secular costs of high debt service could easily dominate any potential short-term benefits. Countries with tremendous debt must act rapidly and unquestionably to address their fiscal problems. The longer-term lesson is that, to frame the fiscal buffer required to address extraordinary events, governments should keep debt well below the estimated thresholds. 2. 2. 4 Problems of borrowingsThere is a consensus that a speedily huge budget deficit can account to be a critical problem for the government and the economy. A budget deficit has to be financed and day-today and this can be done by issuing new government debt to domestic or overseas investors. But it may be that if the budget deficit increases to a high level, the government may have to accord higher interest rates to motivate buyers of government debt. In the long run, higher government borrowing at present may mean that taxes will have to increase in the future and this would put a pressure on spending by private sector businesses and millions of households. In the long run, an extreme level of government borrowing adds to the accumulated National Debt. This means that the Government has to spend more each year in debt-interest payments to holders of government

bonds and other securities. There is an opportunity cost included here since interest payments might be used in more productive ways, for instance an increase in spending on health services. It also symbolizes a transfer of income from people and businesses that pay taxes to those who hold government debt and cause a redistribution of income and wealth in the economy. Neo-liberal economists are generally not in favor to a high level of government spending. They believe that the growth of the private sector of the economy is negatively affected if there is an increase in the share of GDP by the government. They are skeptical about the advantages of higher spending assuming that the scale of waste in the public sector is high – money that would be more beneficial if used by the private sector.

## 2. 3 Debt financing versus. Tax financing

(Michael Carlberg, 2013) explains that the government is in control of three instruments: the government purchase ratio, the budget deficit ratio and the tax rate. Assuming the purchase ratio to be exogenous, then the government can follow only two strategies. Either it fixes the deficit ratio or the tax rate. If the government fixes the deficit ratio, then according to the budget constraint the tax rate will be endogenous and vice versa. The argument is whether a fixed deficit ratio can be sustained. A fixed tax rate however cannot be sustained. According to the Ricardian equivalence, argument is established on the awareness that, lower taxes and a budget deficit require (in the absence of any alteration in government purchases) higher taxes in the future. Hence, the issuing of government debt to finance a tax cut does not mean a decline in the tax burden but slightly an adjournment of it. If consumers are adequately forward looking, they will look ahead to the future

taxes implied by government debt. Knowing that their total tax burden is unaltered, they will not respond to the tax cut by increasing consumption. Alternatively, they will save the entire tax cut to meet the upcoming tax liability; as a result, the decline in public saving (the budget deficit) will accompany with an increase in private saving of exactly the same size. National saving will stay unchanged, as will all other macroeconomic variables. Under equivalence, government deficits hardly change the timing of tax acquisitions in a manner that people can expect and compensate; no vital economic effects arise. With incomplete equivalence, deficits influence the economy, but the impacts are complicated. A deficit or surplus thus has effects not only in the period when the deficit or surplus arises, but also in consecutive periods. Predicting the magnitude and timing of the sequence of effects is not easy.(Evans, 1987) states that the beneficial corporate tax treatment of debt interest payments compared to equity returns seems to be a government inspiration to debt finance. Furthermore, the differential tax treatment of financial institutions' income and individual investors' income under the tax code, all leads to the idea, that debt financing may raise the market value of a firm beyond the expected value of its operational cash flows. As per (Brauninger, 2003), starting from a balanced budget, a tax cut leads to a budget deficit. Public debt emerges and begins to grow. In general, public growth converges to a constant level, while capital growth and output growth decline continuously.

## 2. 4 Public debt and inflation.

Debt issue provides one technique of combatting inflation since it includes an exchange of debt instruments for money. The sale of securities effectively

withdraws money from the private sector, " destroys" currency in circulation. As (Simons, 1944)suggested:" Borrowing is an anti-inflation measure, not a proper means for financing reflationary spending. Borrowing is properly a means for curtailing purchasing power, private and governmental. " According to (M. Buchan, 1958) debt creation is another option for increased taxation, currency inflation, or expenditure reduction. When examining the effects of debt we should always undertake the analysis in differential terms; that is, we must allow one of the three possible compensating variables to be altered in an offsetting way. This is the only permissible means of actually comparing what will happen with and without the debt. If the debt is not to be issued, taxes must be raised, currency inflation must take place, or the public expenditure cannot be financed. It is entirely inappropriate to hold the level of taxes, the money supply, and government expenditure in ceteris paribus, either explicitly or implicitly, when debt issue is examined. In regard to money supply, (Wood, 2012) the policy of financing budget deficits by printing new money is believe to be more efficient (than " quantitative easing" and current Eurozone policy) in increasing demand, output and employment without adding inessentially to already high levels of public debt. Any inflationary aspect of debt issue can be rapidly compensated by the sale of adequate securities to allow an excess of borrowed funds over expenditures. By way of this procedure, the absolute price level can be sustained at a constant level, and the whole debt burden switched ahead. This becomes the model for real- debt issue since it permits us to allocate real or pure debt from tax financing in the extreme sense. In the point of view of (Kandil, 2006) fluctuations in real output growth, price inflation, wage

inflation, and real wage growth change with respect to expected and unexpected shifts to the money supply, government expenditure, and the energy price.

## 2. 5 Public debt and Economic growth

Do high levels of public debt diminish economic growth? This is a vital policy question. A positive response would mean that, even if effective in the short-run, expansionary fiscal policies that augment the level of debt may reduce long-run growth, and thus partly (or fully) contradict the positive effects of the fiscal stimulus. The debt theory states that, we should expect to see fiscal deficits arise when government spending is temporarily high or when output is temporarily low, (Woo, 2003)According to (Schelnast, 2013), no matter what the empirical data show for a particular period, it is still needed to address the fundamental question concerning the nature of the relationship between public debt and private capital accumulation, between public debt and GDP growth. Must this necessarily be negative, as it is so often claimed by conservatives? For example, the data gathered by Reinhart and Rogoff (2009) which shows that debt to GDP beyond 100% have a negative impact on GDP growth. The relationship between public debt and economic growth could be driven by the fact that it is low economic growth that yields higher levels of debt. Alternatively, the observed correlation between debt and growth could be due to a third factor that has a joint effect on these two variables. Setting up the presence of a causal link going from debt to growth needs finding an instrumental variable that has a direct effect on debt but no direct effect on economic growth. According to Keynesian opinions, budget deficit and the public debt have a positive impact on

economic activity in the country, in particular through the mechanism of public expenditure multiplayer. Moreover, they provide arguments indicating the prevalence of crowd–in effect in public expenditure as a result of deficits and debt induced by expansionary fiscal policy. They also argue that budget deficit and government debt increase national production, what makes that private investors perceive the future economic situation more optimistic and increase their investments. On the other hand, representatives of the Neo–classical School state that the budget deficit and public debt can make harmful effects for economic growth. They analyze consumption expenditure of households during their entire life cycle and consider that the government with budget deficit moves the tax burden on future generations, what leads to increase of current consumption. On the assumption of full employment, representatives of the Neo–classical School argue that increasing consumption means decreasing savings. Therefore interest rates must increase in order to restore equilibrium on the capital market what leads to decrease the size of private investment (Keho 2010).